

NASA TECH BRIEF

Lyndon B. Johnson Space Center



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Modular Support Blocks for Fluid Lines

The problem:

Fluid lines that run for any sizable distance frequently require some form of support at one or several intermediate points. Such supports hold the lines firmly fixed to a wall, a ceiling, or the like, protecting them from structural damage that results from vibration and other stresses. One common support is a standard line block (see Figure 1) that is capable of holding several lines of identical diameter. This block is not suitable for parallel running lines that have different diameters. In that case each block must be custom made to accommodate the different line diameters.

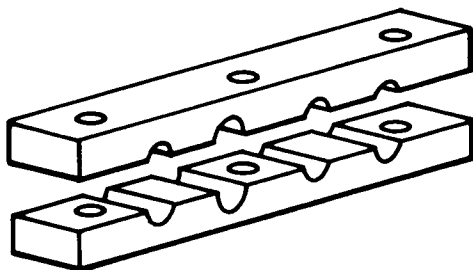


Figure 1. Standard Line Block

The solution:

A new, inexpensive, modular line block can support a number of fluid lines that have different diameters. These blocks are significantly more versatile and cheaper to manufacture than the standard line blocks.

How it's done:

As shown in Figure 2, the modular line block comprises a number of matched modular elements machined to accept fluid lines of different diameters. The modules can be arranged in a number of ways to support different fluid-line configurations. The top and bottom surfaces of each module are machined to accept a dovetail strip used for holding the modules together. The end modules, which also serve to fill gaps in the line block, have holes drilled through to accept the fastening screws.

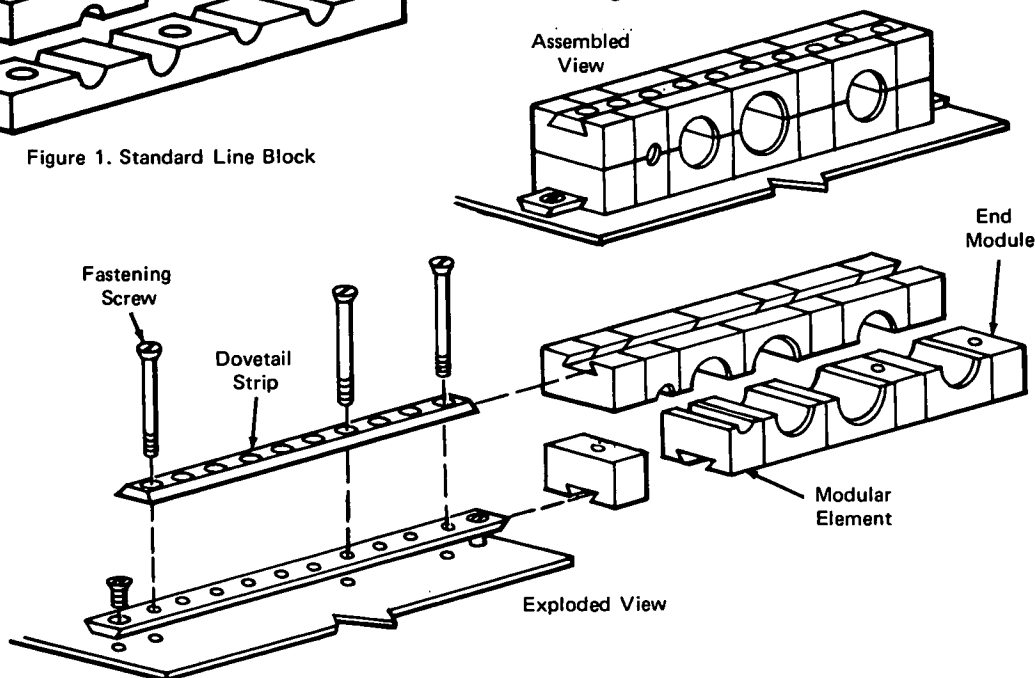


Figure 2. Modular Line Block

(continued overleaf)

Note:

Requests for further information may be directed to:
Technology Utilization Officer
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Reference: TSP74-10023

Patent status:

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